

IN THE CLAIMS

This listing of claims replaces all prior listings:

1. (currently amended) A method in a data processing system for replacing data transmission request expressions, the method comprising the steps of:

receiving a data transmission request expression of a first type from a requestor, the data transmission request expression corresponding to data identified by a data transmission request expression of a second type;

replacing the data transmission request expression of the first type with a replacement data transmission request expression of the second type;

retrieving the data using the replacement data transmission request expression; and

sending the retrieved data to the requestor,

wherein the data transmission request expression is a first uniform resource locator (URL) having a first length and the replacement data transmission request expression is a second uniform resource locator (URL) having a second length.

2. (original) The method of claim 1, further comprising the steps of:

determining whether the retrieved data comprises a data transmission request expression of the second type; and

when the retrieved data comprises a data transmission request expression of the second type, replacing the data transmission request expression in the retrieved data with a replacement data transmission request expression of the first type.

3. (original) The method of claim 1, further comprising the steps of:

determining whether the retrieved data comprises an embedded data transmission request expression;

when the retrieved data comprises the embedded data transmission request expression, determining whether the data transmission request expression is supported by the requestor; and

when data transmission request expression in the retrieved data is not supported by the requestor, replacing the data transmission request expression in the retrieved data with a replacement data transmission request expression supported by the requestor.

4. (original) The method of claim 1, further comprising the step of:

identifying the replacement data transmission request expression as an entry in a lookup table corresponding to the data transmission request expression of the first type.

5. (original) The method of claim 1, further comprising the steps of:
computing a hash value based on the data transmission request expression of the first type, and

using the hash value to identify the replacement data transmission request expression as an entry in a lookup table corresponding to the data transmission request expression of the first type.

6. (original) The method of claim 1, further comprising the steps of:
determining whether the retrieved data comprises an embedded data transmission request expression;

when the retrieved data comprises the embedded data transmission request expression, determining whether a replacement data transmission request expression exists as an entry in a lookup table corresponding to the data transmission request expression in the retrieved data;

when no replacement data transmission request expression exists in the lookup table, generating a replacement data transmission request expression;

storing the generated replacement data transmission request expression in the lookup table in association with the data transmission request expression in the retrieved data.

7. (canceled).

8. (original) The method of claim 1, wherein the data is a web page.

9. (currently amended) A method in a data processing system for replacing data transmission request expressions, the method comprising the steps of:

retrieving data with a data transmission request expression of a first type for sending to a requestor;

replacing the data transmission request expression in the retrieved data with a replacement data transmission request expression of a second type; and

sending the retrieved data with the replacement data transmission request expression to the requestor,

wherein the data transmission request expression is a first uniform resource locator (URL) having a first length and the replacement data transmission request expression is a second uniform resource locator (URL) having a second length.

10. (original) The method of claim 9, further comprising the steps of:
computing a hash value based on the data transmission request expression of the first type, and

using the hash value to identify the replacement data transmission request expression as an entry in a lookup table corresponding to the data transmission request expression of the first type.

11. (original) The method of claim 9, further comprising the steps of:
determining whether a replacement data transmission request expression exists as an entry in a lookup table corresponding to the data transmission request expression in the retrieved data;
when no replacement data transmission request expression exists in the lookup table, generating a replacement data transmission request expression;
storing the generated replacement data transmission request expression in the lookup table in association with the data transmission request expression in the retrieved data.

12. (canceled).

13. (original) The method of claim 9, wherein the data is a web page.

14. (original) A method in a data processing system having a web server with a web page, the method comprising the steps performed by the web server of:

receiving a first URL of a first type from a client, the first URL corresponding to the web page identified by a URL of a second type;

replacing the first URL with a replacement URL of the second type;

retrieving the web page using the replacement URL; and

sending the retrieved web page to the client.

15. (currently amended) A computer-readable medium containing instructions that cause a data processing system to perform a method for replacing data transmission request expressions, the method comprising the steps of:

receiving a data transmission request expression of a first type from a requestor, the data transmission request expression corresponding to data identified by a data transmission request expression of a second type;

replacing the data transmission request expression of the first type with a replacement data transmission request expression of the second type;

retrieving the data using the replacement data transmission request expression; and

sending the retrieved data to the requestor,

wherein the data transmission request expression is a first uniform resource locator (URL) having a first length and the replacement data transmission request expression is a second uniform resource locator (URL) having a second length.

16. (original) The computer-readable medium of claim 15, further comprising the steps of:

determining whether the retrieved data comprises a data transmission request expression of the second type; and

when the retrieved data comprises a data transmission request expression of the second type, replacing the data transmission request expression in the retrieved data with a replacement data transmission request expression of the first type.

17. (original) The computer-readable medium of claim 15, further comprising the steps of:

determining whether the retrieved data comprises an embedded data transmission request expression;

when the retrieved data comprises a data transmission request expression, determining whether the data transmission request expression is supported by the requestor; and

when data transmission request expression in the retrieved data is not supported by the requestor, replacing the data transmission request expression in the retrieved data with a replacement data transmission request expression supported by the requestor.

18. (original) The computer-readable medium of claim 15, further comprising the step of:

identifying the replacement data transmission request expression as an entry in a lookup table corresponding to the data transmission request expression of the first type.

19. (original) The computer-readable medium of claim 15, further comprising the steps of:

computing a hash value based on the data transmission request expression of the first type, and

using the hash value to identify the replacement data transmission request expression as an entry in a lookup table corresponding to the data transmission request expression of the first type.

20. (original) The computer-readable medium of claim 15, further comprising the steps of:

determining whether the retrieved data comprises an embedded data transmission request expression;

when the retrieved data comprises an embedded data transmission request expression, determining whether a replacement data transmission request expression exists as an entry in a lookup table corresponding to the data transmission request expression in the retrieved data;

when no replacement data transmission request expression exists in the lookup table, generating a replacement data transmission request expression;

storing the generated replacement data transmission request expression in the lookup table in association with the data transmission request expression in the retrieved data.

21. (canceled).

22. (original) The computer-readable medium of claim 15, wherein the data is a web page.

23. (currently amended) A computer-readable medium containing instructions that cause a data processing system to perform a method for replacing data transmission request expressions, the method comprising the steps of:

retrieving data with a data transmission request expression of a first type for sending to a requestor;

replacing the data transmission request expression in the retrieved data with a replacement data transmission request expression of a second type; and

sending the retrieved data with the replacement data transmission request expression to the requestor,

wherein the data transmission request expression is a first uniform resource locator (URL) having a first length and the replacement data transmission request expression is a second uniform resource locator (URL) having a second length.

24. (original) The computer-readable medium of claim 23, further comprising the steps of:

computing a hash value based on the data transmission request expression of the first type, and

using the hash value to identify the replacement data transmission request expression as an entry in a lookup table corresponding to the data transmission request expression of the first type.

25. (original) The computer-readable medium of claim 23, further comprising the steps of:

determining whether a replacement data transmission request expression exists as an entry in a lookup table corresponding to the data transmission request expression in the retrieved data;

when no replacement data transmission request expression exists in the lookup table, generating a replacement data transmission request expression;

storing the generated replacement data transmission request expression in the lookup table in association with the data transmission request expression in the retrieved data.

26. (canceled).

27. (original) The computer-readable medium of claim 23, wherein the data is a web page.

28. (original) A computer-readable medium containing instructions that cause a data processing system having a web server with a web page to perform a method for replacing URLs, the method comprising the steps of:

receiving a first URL of a first type from a client, the first URL corresponding to the web page identified by a URL of a second type;

replacing the first URL with a replacement URL of the second type;

retrieving the web page using the replacement URL; and

sending the retrieved web page to the client.

29. (currently amended) A data processing system comprising:

a secondary storage device having a stored data identified by a data transmission request expression of a first type;

a memory comprising a computer program that receives a data transmission request expression of a second type from a requestor, the data transmission request expression of the second type corresponding to the stored data identified by the data transmission request expression of the first type, replaces the data transmission request expression of the second type with a replacement data transmission request expression of the first type, retrieves the data using the replacement data transmission request expression, and sends the retrieved data to the requestor; and

a processing unit that runs the computer program,

wherein the data transmission request expression of the second type is a first uniform resource locator (URL) having a first length and the replacement data transmission request expression is a second uniform resource locator (URL) having a second length.

30. (canceled).

31. (original) The data processing system of claim 29, wherein the data is a web page.

32. (currently amended) A data processing system comprising:

a secondary storage device having a stored data having a data transmission request expression of a first type;

a memory comprising a computer program that retrieves the stored data for sending to a requestor, replaces the data transmission request expression in the retrieved data with a

replacement data transmission request expression of a second type, and sends the retrieved data with the replacement data transmission request expression to the requestor; and

a processing unit that runs the computer program,

wherein the data transmission request expression is a first uniform resource locator (URL) having a first length and the replacement data transmission request expression is a second uniform resource locator (URL) having a second length.

33. (canceled).

34. (original) The data processing system of claim 32, wherein the data is a web page.

35. (currently amended) A data processing system for replacing data transmission request expressions, the data processing system comprising:

means for receiving a data transmission request expression of a first type from a requestor, the data transmission request expression corresponding to data identified by a data transmission request expression of a second type;

means for replacing the data transmission request expression of the first type with a replacement data transmission request expression of the second type;

means for retrieving the data using the replacement data transmission request expression;
and

means for sending the retrieved data to the requestor,

wherein the data transmission request expression is a first uniform resource locator (URL) having a first length and the replacement data transmission request expression is a second uniform resource locator (URL) having a second length.

36. (currently amended) A data processing system for replacing data transmission request expressions, the data processing system comprising:

means for retrieving data with a data transmission request expression of a first type for sending to a requestor;

means for replacing the data transmission request expression in the retrieved data with a replacement data transmission request expression of a second type; and

means for sending the retrieved data with the replacement data transmission request expression to the requestor,

wherein the data transmission request expression is a first uniform resource locator (URL) having a first length and the replacement data transmission request expression is a second uniform resource locator (URL) having a second length.

37. (currently amended) A computer-readable memory device encoded with a data structure and a program that accesses the data structure, the program is run by a processor in a system, the data structure having a plurality of entries, each entry comprising:

a data transmission request expression of a first type for retrieving a document identified by a data transmission request expression of a second type, wherein the program replaces the data transmission request expression of the first type with a data transmission request expression of a second type before retrieving the document,

wherein the data transmission request expression of the first type is a first uniform resource locator (URL) having a first length and the replacement data transmission request expression is a second uniform resource locator (URL) having a second length.